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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,844	03/19/2001	Louis Peter Huber	P04870US0	9248

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SUITE 3200
DES MOINES, IA 50309-2721

EXAMINER

EASTHOM, KARL D

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/811,844

Applicant(s)
Huber et al.

Examiner
Karl Easthom

Art Unit
2832



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 6, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-25 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-18 and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if stacking is required due to the limitation of "when the resistors stacked" and similarity, it is not clear how the encapsulant is between the top and bottom resistors of the first and second resistors if there is no stacking. Claim 14 is redundant since glass is already claimed in the base claim 9. In claim 18, a stacked resistor is claimed, but the claim also indicates the components are capable of being aligned and stacked, so that it is not clear if stacking is required or what is meant.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Kita et al. (JP 2-270302). Kita discloses the invention at Figs.3 or 4 where stacked film resistors 3 have an encapsulant depicted with first and second metal barriers 4 or 15, although the first and second barriers are joined together to form a magazine. Element 1 appears to be a glass covering for the resistor thereunder.

5. Claims 1-18 and 20-25 are rejected under 35 U.S.C. 102(e,b) as being anticipated by Hashimoto et al. (US '920) or Kambara. Hashimoto discloses the claimed invention at Fig. 16. The glass layer is 94 with a nickel metal barrier layer covering the end caps 96 for each of the chips (see Fig. 17). No stacking is claimed, due to the limitation of "when the devices are stacked" so that the glass encapsulant 94 would meet the claim when stacked. Similarly, Kambara discloses the invention at Fig. 2 with end caps 2 partially on the end surface of substrate 1 as seen at Fig. 2, and metal barrier 5 and glass encapsulant 4. In claims 16-17, there are at least three-four chips resistors claimed, and stacking is not required as noted. In claim 1, the stacking of the Hashimoto resistors result in the barrier films electrically connected.

6. Claims 1-18 and 20-25 are rejected under 35 U.S.C. 102(b) as anticipated by Hashimoto et al. or Kambara or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hashimoto et al. or Kambara, in view of Kita et al. (JP 2-270302) or JP 6283301. The 102 alternative is noted above. Here it is assumed stacking is required in the other alternative. Nita discloses stacking chips in a magazine for the purpose storing same for storage and later mounting. JP '301 discloses stacking chips at Figs. 2 and 3 with a metal barrier 13 such as the chips of Hashimoto or Kambara, for the purpose of forming a parallel circuit. While the barrier is noted as Cu, other metals are disclosed generally at par. 15, and it would have been obvious to employ Ni where it is noted as the metal end caps of Hashimoto or Kambara. As to Nita, it would have been obvious to form the resistors in a magazine for storage and later mounting. The Hashimoto resistors, when stacked, would have the terminals touch in Nita, since they protrude above the glass encapsulant,

which would have been obvious to stack so that they could be mounted with the resistor facing up or down, as disclosed at Fig. 4a and the discussion therefor.

7. Claims 1-4, 7-9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6283301 in view of Hashimoto JP (4-214601). JP '301 discloses the claimed invention at Fig. 6c except the nickel barrier and except for disclosing film resistors explicitly stacked together. There is a suggestion that elements 31,32,33 can all be resistors of the same type, where different types of chips that are the same size are stacked together to save space, and since two or more chip elements are disclosed as stacked. Further, applicant admits at page 1 that the resistors of the same type have been stacked as is known to increase capacity. The end caps are of silver for claims 18 and 22. The encapsulant is the adhesives noted on page 2 of the machine translation. The metal barrier is 13. Nickel barriers are known for attachment to metal end caps and for solderability, such as the nickel 9a of Hashimoto. It would have been obvious to replace the Cu metal cap 33 with one made of nickel where each reference discloses a metal connected to a ruthenium resistor, for the purpose of forming a good solderable lead.

8. Applicant's arguments filed 8/6/2 have been fully considered but they are moot or are not persuasive. Applicant argues that neither Hashimoto nor JP '301 disclose two resistor films on substrates. This is not persuasive where chips are stacked, and chips with films are disclosed in both references, the latter disclosing at least two chips stacked.

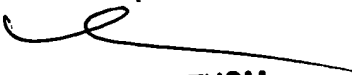
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl Easthom whose telephone number is (703) 308-3306. The examiner can normally be reached on M-Th from 5:30AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad, can be reached on (703) 308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


KARL D. EASTHOM
PRIMARY EXAMINER